



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/748,502	12/30/2003	Vincent J. Zimmer	42P18116	7254
<div>7590      08/07/2007</div> <div>Anthony H. Azure BLAKELY, SOKOLFF, TAYLOR &amp; ZAFMAN LLP Seventh Floor 12400 Wilshire Boulevard Los Angeles, CA 90025</div>				
			EXAMINER WILSON, YOLANDA L	
			ART UNIT 2113	PAPER NUMBER
			MAIL DATE 08/07/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/748,502	<b>Applicant(s)</b> ZIMMER ET AL.	
	<b>Examiner</b> Yolanda L. Wilson	<b>Art Unit</b> 2113	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 24 May 2007.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-25 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1,3-22 is/are allowed.
- 6) ☒ Claim(s) 23 and 24 is/are rejected.
- 7) ☒ Claim(s) 25 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 23,24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jeddelloh (USPN 5862314A) in view of Alexander et al. (USPN 6189111B1) in view of Lewis (20030154392A1) in further view of Finch et al. (5592616A). As per claim 23, Jeddelloh discloses relocating from the faulty portion of memory to a safe portion of memory in column 4, lines 19-48; column 5, lines 7-26.

Jeddelloh fails to explicitly state a system software component and relocating the system software component.

Alexander et al. discloses this limitation in column 6, line 54 – column 7, line 4; column 8, lines 16-25. The system software component is the critical information resources disclosed in column 3, lines 1-6.

Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have a system software component and relocate the system software component. A person of ordinary skill in the art would have been motivated to have a system software component and relocate the system software component because this information is important for the running of the computing

system and for being able to recover this information for continued processing, see column 8, lines 16-25.

3. Jeddeloh fails to explicitly state wherein the system software component includes instructions loaded from a firmware device during a pre-boot phase of the computer system that persist into an operating system runtime of the computer system.

Alexander et al. discloses this limitation in column 6, line 54 – column 7, line 4; column 3, lines 1-6.

Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have the system software component includes instructions loaded from a firmware device during a pre-boot phase of the computer system that persist into an operating system runtime of the computer system. A person of ordinary skill in the art would have been motivated to have the system software component includes instructions loaded from a firmware device during a pre-boot phase of the computer system that persist into an operating system runtime of the computer system because this information is important for the running of the computing system.

4. Jeddeloh fails to explicitly state finding the safe portion of memory within the system software memory region; and updating a system software memory manager to indicate the system software component is located at the safe portion of memory in column 4, lines 19-48.

Jeddeloh fails to explicitly state moving the system software component to the safe portion of memory.

Alexander et al. discloses this limitation in column 6, line 54 – column 7, line 4; column 8, lines 16-25. The system software component is the critical information resources disclosed in column 3, lines 1-6.

Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to move the system software component to the safe portion of memory. A person of ordinary skill in the art would have been motivated to move the system software component to the safe portion of memory because this information is important for the running of the computing system and for being able to recover this information for continued processing, see column 8, lines 16-25.

5. Jeddelloh and Alexander et al. fail to explicitly state the faulty portion having stored a System Management Random Access Memory (SMRAM) of memory.

Lewis discloses this limitation on page 1, paragraph 0003.

Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have the system software memory region comprises System Management Random Access Memory (SMRAM). A person of ordinary skill in the art would have been motivated to have the system software memory region comprises System Management Random Access Memory (SMRAM) because SMRAM is stored critical information used to run a computer system.

6. Jeddelloh and Alexander et al. fail to explicitly state generating a system management interrupt (SMI) when the error detector detects a faulty portion of memory in the computer system during an operating system (OS) runtime.

Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have generating a system management interrupt (SMI) when the error detector detects a faulty portion of memory in the computer system during an operating system (OS) runtime. A person of ordinary skill in the art would have been motivated to have generating a system management interrupt (SMI) when the error detector detects a faulty portion of memory in the computer system during an operating system (OS) runtime because the SMI is used to invoke the SMM to handle function for use by the system firmware.

7. Jeddeloh, Alexander et al., and Lewis et al. fail to explicitly state setting a memory error detector including an error correction code (ECC) during a pre-boot phase of the computer system.

Finch et al. discloses this limitation in column 3, lines 46-49.

Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have setting a memory error detector during a pre-boot phase of the computer system. A person of ordinary skill in the art would have been motivated to have setting a memory error detector during a pre-boot phase of the computer system because the memory error detector allows for memory faults to be found.

8. As per claim 24, Jeddeloh discloses determining a memory address of the faulty portion in column 3, lines 48-51.

***Claim Objections***

9. Claim 25 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Allowable Subject Matter***

10. Claims 1,3-22 allowed.

11. The following is a statement of reasons for the indication of allowable subject matter: The primary reason for the allowance of claims 1,3-22 is the inclusion of the limitation wherein the system software that includes the system software component independently performs the detecting of the faulty portion of memory and the relocating of the system software component.

***Response to Arguments***

12. Applicant's arguments and amending with respect to the rejection(s) of claim(s) 1,3-22 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made for new claims 23,24 in view of Jeddelloh, Alexander, Lewis, and Finch as indicated in the above rejection.

***Conclusion***

13. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

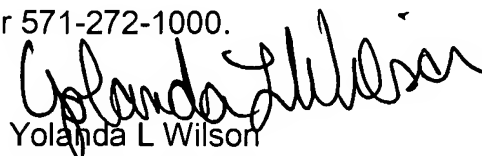
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yolanda L. Wilson whose telephone number is (571) 272-3653. The examiner can normally be reached on M-F (7:30-4:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Beausoliel can be reached on (571) 272-3645. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



Art Unit: 2113

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
Yolanda L. Wilson  
Primary Examiner  
Art Unit 2113